

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 96-009
NPDES NO. CA0038679

WASTE DISCHARGE REQUIREMENTS FOR:

LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY
SAN LORENZO CREEK INTERMITTENT WET WEATHER DISCHARGE
SAN LEANDRO, ALAMEDA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter Board) finds that:

1. The Livermore-Amador Valley Water Management Agency (LAVWMA), hereinafter the discharger, by application dated April 19, 1995, has applied for reissuance of waste discharge requirements and a permit to discharge waste under the National Pollutant Discharge Elimination System (NPDES).
2. The discharger proposes to seasonally discharge up to 1.28 million gallons per day (mgd) of secondary treated, chlorinated and dechlorinated wastewater for a maximum duration of two consecutive days during extreme wet weather to San Lorenzo Creek. Discharges to the Creek are estimated to occur once every four to five years. The discharge from the LAVWMA dechlorination facility is a surface discharge at a point located westerly of Lewelling Boulevard where the Southern Pacific Railroad bridge crosses San Lorenzo Creek, at Latitude 37 deg., 40 min., 30 sec., and Longitude 122 deg., 09 min., 14 sec. San Lorenzo Creek is a lined flood channel within the tidal prism at the discharge point and flows to Lower San Francisco Bay where an initial dilution of greater than 10:1 is expected.
3. Under present contractual agreements, LAVWMA currently discharges treated wastewater (19.72 mgd contractual maximum) into the East Bay Dischargers Authority (EBDA) transport pipeline and deepwater outfall into Lower San Francisco Bay. Studies indicate that an additional 1.28 mgd can be exported via its existing pipeline and pump station with minor modifications, but that any additional expansion would necessitate major construction of new facilities which are not part of this Order. In June 1985, the dischargers modified their contractual agreement to allow LAVWMA to export an additional 1.28 mgd of flow through the EBDA system except during periods when EBDA requires full capacity in its pipeline for its own use. During these periods of full capacity, the discharger may discharge the additional 1.28 mgd to San Lorenzo Creek.
4. Order No. 94-072 (NPDES No. CA0037869) regulates discharges from LAVWMA through the EBDA system. Tributary agencies to LAVWMA, the Dublin San Ramon Services District and the City of Livermore, are currently regulated by separate waste discharge requirements contained in Order Nos. 94-074 (NPDES No. CA0037613) and 94-073 (NPDES No. CA0038008), respectively.

5. LAVWMA became effective on March 26, 1979, as a joint powers agency created for wastewater management planning for the service areas of Livermore, Pleasanton, and the Dublin San Ramon Services District (DSRSD). By contractual agreement, DSRSD is responsible for operating and maintaining the LAVWMA export pipeline, pump station, and dechlorination facility.
6. The discharge is presently governed by Waste Discharge Requirements, Order No. 90-125, which allows intermittent discharge into San Lorenzo Creek.
7. The Board adopted a revised Water Quality Control Plan for the San Francisco Basin (Basin Plan) on June 21, 1995. The Basin Plan identifies beneficial uses and water quality objectives for surface and groundwaters in the region, as well as effluent limitations and discharge prohibitions intended to protect beneficial uses.
8. The beneficial uses of San Lorenzo Creek and Lower San Francisco Bay are:

San Lorenzo Creek

- a. Water contact recreation
- b. Non-contact water recreation
- c. Wildlife habitat
- d. Warm and Cold Fresh Water Habitats
- e. Fish migration and spawning
- f. Groundwater discharge
- g. Fresh water replenishment
- h. Municipal and domestic supply

San Francisco Bay

- a. Industrial service supply
 - b. Navigation
 - c. Water contact recreation
 - d. Non-contact water recreation
 - e. Commercial and sport fishing
 - f. Wildlife habitat
 - g. Preservation of rare and endangered species
 - h. Fish spawning and migration
 - I. Shellfish harvesting
 - j. Estuarine habitat
9. The Basin Plan contains a prohibition of discharge of any wastewater which has particular characteristics of concern to beneficial uses into any non-tidal water, dead-end slough, similar confined waters, or immediate tributaries thereof.

10. The Basin Plan allows exceptions to this discharge prohibition in three cases:
 - a. an inordinate burden would be placed on the discharger relative to beneficial uses protected and an equivalent level of environmental protection can be achieved by alternate means, such as an alternative discharge site, a higher level of treatment, and/or improved treatment reliability; or
 - b. a discharge is approved as a part of a reclamation project; or
 - c. it can be demonstrated that net environmental benefits will be derived as a result of the discharge.
11. An exception based on finding 10.a. is justified for the following reasons:
 - a. A habitat study performed by the discharger has shown that the discharge as proposed will meet the beneficial use concerns of the California Department of Fish and Game and the Regional Board.
 - b. The discharger as proposed will be intermittent (once every four to five years during wet weather only).
 - c. The discharger's system and its tributary wastewater treatment plants provide reliable and adequate secondary treatment of wastewaters.
 - d. An inordinate financial burden would be placed on the discharger by expanding the existing EBDA pipeline to accommodate the additional 1.28 mgd flow.
12. This Order serves as an NPDES permit, reissuance of which is exempt from the provisions of Chapter 3 (commencing with Section 21100) of Division 13 of the Public Resources Code (CEQA) pursuant to Section 13389 of the California Water Code.
13. The discharger and interested agencies and persons have been notified of the Board's intent to reissue requirements for the existing discharge and have been provided an opportunity to submit their written views and recommendations.
18. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, pursuant to the provisions of Division 7 of the California Water Code and regulations adopted thereunder, and to the provisions of the Clean Water Act and regulations and guidelines adopted thereunder, that the discharger shall comply with the following:

A. Discharge Prohibitions

1. Bypass or overflow of untreated or partially treated wastewater to waters of the State either at the dechlorination facility or from any of the joint facilities or the discharger export system and pump stations during wet weather (October 15 through April 15) is prohibited.
2. Discharge during dry weather is prohibited.
3. The average daily flow shall not exceed 1.28 mgd and shall be limited to periods when EBDA requires the full capacity of its outfall.

B. Effluent Limitations

1. Effluent discharged shall not exceed the following limits:

<u>Constituents</u>	<u>Units</u>	<u>Monthly Average</u>	<u>Weekly Average</u>	<u>Daily Maximum</u>	<u>Instantaneous Maximum</u>
a. Total Suspended Solids	mg/l	---	---	60	---
b. Settleable Matter	ml/l-hr	---	---	0.2	---
c. Total Chlorine Residual ⁽¹⁾	mg/l	---	---	---	0.00
d. Carbonaceous BOD	mg/l	---	---	50	---
e. Oil & Grease	mg/l	---	---	20	---

- (1) Requirement defined as below the limit of detection in the latest edition of "Standard Methods for the Examination of Water and Wastewater."

2. The pH of the discharge shall not exceed 9.0 nor be less than 6.0.
3. Any single total coliform sample shall not exceed 10,000 MPN/100 ml.
4. Acute Toxicity:

The survival of organisms in undiluted effluent shall be an eleven (11) sample median value of not less than 90 percent survival, and an eleven (11) sample 90 percentile value of not less than 70 percent survival. The eleven sample median and 90th percentile effluent limitations are defined as follows:

11 sample median: A bioassay test showing survival of less than 90 percent represents a violation of this effluent limit, if five or more of the past ten or less bioassay tests show less than 90 percent survival.

90th percentile: A bioassay test showing survival of less than 70 percent represents a violation of this effluent limit, if one or more of the past ten or less bioassay tests show less than 70 percent survival.

5. Representative samples of the effluent shall not exceed the following limits in micrograms per liter ($\mu\text{g/l}$)^{a,d}:

Table 1

<u>Constituent</u>	<u>Daily Maximum</u>
a. Arsenic	200
b. Cadmium	30
c. Chromium (VI) ^(b)	110
d. Copper	37
e. Lead	56
f. Mercury	0.21
g. Nickel	65
h. Selenium	50
I. Silver	23
j. Zinc	580
k. Cyanide ^(c)	10
l. Phenols	500
m. PAHs	150

Footnotes:

- These limits are based on marine water quality objectives, and are intended to be achieved through secondary treatment and, as necessary, pretreatment and source control.
- The dischargers may meet this limit as total chromium.
- The dischargers may demonstrate compliance with this limitation by measurement of weak acid dissociable cyanide.
- All analyses shall be performed using current USEPA Methods, as specified in 40 CFR 136 (40 CFR 122.44(I)).

C. Receiving Water Limitations

- The discharge of waste shall not cause the following conditions to exist in waters of the State at any place at levels that cause nuisance or adversely affect beneficial uses:
 - Floating, suspended, or deposited macroscopic particulate matter or foam;
 - Bottom deposits or aquatic growths to the extent that such deposits or growths cause nuisance or adversely affect beneficial uses;
 - Alteration of temperature, turbidity, or apparent color beyond present natural background levels;

- d. Visible, floating, suspended, or deposited oil or other products of petroleum origin;
 - e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on wildlife, waterfowl, or other aquatic biota, or which render any of these unfit for human consumption, either at levels created in the receiving waters or as a result of biological concentration.
 2. The discharge of waste shall not cause the following limits to be exceeded in waters of the State in any place within one foot of the water surface:
 - a. Dissolved Oxygen 5.0 mg/l, minimum
 - b. Dissolved Sulfide 0.1 mg/l, maximum
 - c. pH Variation from normal ambient pH by more than 0.5 pH units.
 - d. Un-ionized Ammonia 0.4 mg/l as N, max.
 3. The discharge shall not cause a violation of any particular water quality standard for receiving waters adopted by the Board or the State Board as required by the Clean Water Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Clean Water Act, or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

D. Provisions

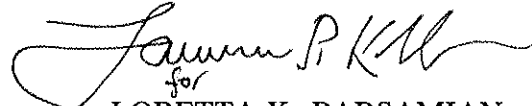
1. The requirements prescribed by this Order supersede the requirements prescribed by Order No. 90-125 adopted on September 19, 1990. Order No. 90-125 is hereby rescinded.
2. Where concentration limitations in mg/l are contained in this permit, the following mass emission limitations shall also apply as follows:

Mass Emission Limit in lbs/day = Concentration Limit in mg/l \times 8.34 \times Actual Flow in MGD averaged over the time interval to which the limit applies.

3. The discharger shall comply with all sections of this Order immediately upon adoption.
4. Compliance with Acute Toxicity Effluent Limitation
 - a. Compliance with Effluent Limitation B.4. (Acute Toxicity) of this Order shall be evaluated by measuring survival of test organisms acceptable to the Executive Officer exposed to undiluted effluent for 96 hours in flow-through bioassays.

- b. All bioassays shall be performed according to protocols approved by the USEPA or State Board, or published by the American Society for Testing and Materials (ASTM) or American Public Health Association.
5. The discharger shall comply with the **Self-Monitoring Program** for this order, as adopted by the Board and as may be amended by the Executive Officer.
 6. Annually, the discharger shall review and update as necessary, its Contingency Plan as required by Board Resolution 74-10. The discharge of pollutants in violation of this Order where the discharger has failed to develop and/or adequately implement a contingency plan will be the basis for considering such discharge a willful and negligent violation of this Order pursuant to Section 13387 of the California Water Code. Plan revisions, or a letter stating that no changes are needed, shall be submitted to the Board by April 15 of each year.
 7. The discharger shall comply with all applicable items of the attached "**Standard Provisions and Reporting Requirements** " dated August 1993, or any amendments thereafter.
 8. The discharger shall review, and update as necessary, its Operations and Maintenance Manual, annually, or within 90 days of completion of any significant facility or process changes. The discharger shall submit to the Board, by April 15 of each year, a letter describing the results of the review process including an estimated time schedule for completion of any revisions determined necessary, and a description or copy of any completed revisions.
 9. The Board may modify, or revoke and reissue, this Order and Permit if present or future investigations demonstrate that the discharge governed by this Order is causing or significantly contributing to adverse impacts on water quality and/or beneficial uses of the receiving waters.
 10. This Order expires on January 17, 2001. The dischargers must file a report of waste discharge in accordance with Title 23, Chapter 3, Subchapter 9 of the California Administrative Code not later than 180 days before this expiration date as application for reissuance of waste discharge requirements.
 11. This Order shall serve as a National Pollutant Discharge Elimination System (NPDES) permit pursuant to Section 402 of the Clean Water Act or amendments thereto, and shall become effective 10 days after the date of its adoption provided the Regional Administrator, EPA, has no objection. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.

I, Loretta K. Barsamian, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on January 17, 1996.


for
LORETTA K. BARSAMIAN
Executive Officer

Attachments:

Self-Monitoring Program

Standard Provisions and Reporting Requirements - August 1993

Resolution No. 74-10

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM

FOR

LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY
SAN LORENZO CREEK INTERMITTENT WET WEATHER DISCHARGE
SAN LEANDRO, ALAMEDA COUNTY

NPDES NO. CA0038679
ORDER NO. 96-009

CONSISTING OF
PART A, DATED AUGUST 1993
AND PART B

PART B

I. DESCRIPTION OF SAMPLING STATIONS

A. EFFLUENT - DECHLORINATION FACILITY

<u>Station</u>	<u>Description</u>
E-001	At any point in the discharger's system facilities at which adequate disinfection and dechlorination has taken place and prior to the point of discharge.

B. RECEIVING WATERS (SAN LORENZO CREEK)

<u>Station</u>	<u>Description</u>
C-1	At a point located 100 feet upchannel from the discharge point.
C-2	At a point located 100 feet downchannel from the discharge point.
C-3	Reference station located ½ mile upchannel and/or out of the discharge's zone of influence.

C. LAND OBSERVATIONS - DECHLORINATION FACILITY

<u>Station</u>	<u>Description</u>
P-1 through P-n	Located at the corners and midpoints of the perimeter fenceline surrounding the dechlorination facility.

D. OVERFLOWS AND BYPASSES

<u>Station</u>	<u>Description</u>
O-1 through O-n	Bypass or overflows from manholes, pump stations, interceptors, or collection system.

NOTE:

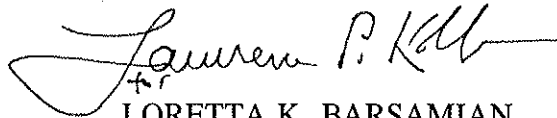
1. A map and description of each known or observed overflow or bypass location shall accompany each monthly report. A summary of these occurrences and their locations shall be included with the Annual Report for each calendar year.

II. SCHEDULE OF SAMPLING, ANALYSIS AND OBSERVATIONS

The schedule of sampling, analysis and observation shall be that given in Table 1.

I, Loretta K. Barsamian, Executive Officer, hereby certify that this Self-Monitoring Program:

1. Has been developed in accordance with the procedures set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order No. 96-009.
2. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger, and revisions will be authorized by the Executive Officer.
3. Is effective on January 17, 1996.

A handwritten signature in black ink, appearing to read "Loretta K. Barsamian", with a stylized flourish at the end.

LORETTA K. BARSAMIAN
Executive Officer

Attachment:

A. Table 1

TABLE 1
SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS
ORDER NO. 96-009

Sampling Station	E-001			All C Sta.	All P Sta.	All O Sta.
TYPE OF SAMPLE	C-X	G	Cont.	G	O	O
Flow Rate (mgd)	E					
BOD, 5-day, 20°C, or COD (mg/l & Kg/day)	E					
Chlorine Residual and Dosage (mg/l & Kg/day) (3)			E			
Settleable Matter ml/l-hr. & ft ³ /day)		E				
Total Suspended Matter (mg/l & Kg/day)	E					
Oil & Grease (mg/l & Kg/day)		E				
Coliform (Total or Fecal) (1) (MPN/100 ml) per req't		E				
Acute Fish Toxicity, 96-hr. (% survival) (6)	E					
Ammonia Nitrogen (mg/l & Kg/day) (2)	E					
Nitrite Nitrogen (mg/l & Kg/day) (2)	E					
pH (Units)		E		E		
Dissolved Oxygen (mg/l and % saturation)		E		E		
Temperature (°C)		E		E		
Sulfides (if DO < 5.0 mg/l) Total and Dissolved (mg/l)		E		E		

Sampling Station	E-001			All C Sta.	All P Sta.	All O Sta.
TYPE OF SAMPLE	C-X	G	Cont.	G	O	O
Arsenic ($\mu\text{g/l}$ & Kg/day) (5)	C					
Cadmium ($\mu\text{g/l}$ & Kg/day) (5)	C					
Chromium, Total ($\mu\text{g/l}$ & Kg/day) (5)	C					
Copper ($\mu\text{g/l}$ & Kg/day) (5)	C					
Cyanide ($\mu\text{g/l}$ & Kg/day) (5)	C					
Silver ($\mu\text{g/l}$ & Kg/day) (5)	C					
Lead ($\mu\text{g/l}$ & Kg/day) (5)	C					
Mercury ($\mu\text{g/l}$ & Kg/day) (5)	C					
Nickel ($\mu\text{g/l}$ & Kg/day) (5)	C					
Selenium ($\mu\text{g/l}$ & Kg/day) (5)	C					
Zinc ($\mu\text{g/l}$ & Kg/day) (5)	C					
Phenolic Compounds ($\mu\text{g/l}$ & Kg/day) (5)	C					
PAHs ($\mu\text{g/l}$ & Kg/day) (5)	C					
All Applicable Standard Observations		E		E	D	D
Un-ionized Ammonia (mg/l) (2)		E		E		
Dilution Ratio Estimate (4)		E				

LEGEND FOR TABLE

TYPES OF SAMPLES

G = grab sample
C-24 = composite sample (24-hour)
Cont. = continuous sampling
O = observation

TYPES OF STATIONS

E = waste effluent stations
C = receiving water stations
L = basin and/or pond levee stations
P = treatment facilities perimeter stations

FREQUENCY OF SAMPLING

C-X = Composite sample (1/hour) over X hours (the duration of the discharge)

E = each occurrence	2/H = twice per hour	2H = every 2 hours
H = once each hour	2/W = 2 days per week	2D = every two days
D = once each day	5/W = 5 days per week	2W = every two weeks
W = once each week	2/M = 2 days per month	2M = every two months
M = once each month	2/Y = twice per year	Cont. = continuous
Y = once each year	Q = quarterly, once each in Mar., June, Sept., & Dec.	

TABLE 1 FOOTNOTES

- (1) Sampling and compliance with the Total Coliform effluent limits may be demonstrated at each tributary treatment plant prior to its discharge to the LAVWMA system. A letter requesting the above modification in sampling requirements shall be submitted to the Executive Officer. Coliform data for the plant shall be submitted with the discharger's report for the appropriate sampling days.
- (2) Ammonia nitrogen, nitrite nitrogen, and unionized ammonia shall be analyzed with the same composite samples used for the fish bioassay test.
- (3) Chlorine residual analyzers shall be calibrated against grab samples as frequently as necessary to maintain accurate control and reliable operation. If an effluent violation is detected, grab samples shall be taken every 30 minutes until compliance is achieved.
- (4) Minimum and maximum dilution ratios (effluent vs. channel flow) shall be calculated for each day of discharge. The concentration of unionized ammonia after dilution for receiving water stations (C-1 & C-2) may be calculated upon approval by the Executive Officer of a satisfactory methodology submitted by the discharger.
- (5) Sampling and compliance with the various metallic, phenolic, and Polynuclear Aromatic Hydrocarbon effluent limits may be demonstrated at each tributary treatment plant prior to its discharge to the LAVWMA system. Results shall be reported with the self-monitoring report.
- (6) Fish Toxicity shall be determined using 96-hour static bioassays representative of the discharged effluent. One specie shall be three-spined stickleback, and the other shall be either rainbow trout or fathead minnow. Effluent used for fish bioassays must be undiluted and dechlorinated.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

SAN FRANCISCO BAY REGION

2101 WEBSTER STREET, SUITE 500

OAKLAND, CA 94612

Tel: (510) 286-1255

Fax: (510) 286-1380



Date: JAN 25 1996
File No. 2199.9129(VBP)

Livermore Amador Valley Water Management Agency
c/o Mr. Robert Swanson
Wastewater Services Manager
Dublin San Ramon Services District
7051 Dublin Boulevard
Dublin, CA 94568

Subject: NPDES Permit for the LAVWMA's Intermittent Wet Weather Discharge

Dear Mr. Swanson:

The Regional Board adopted Order No. 96-009 (NPDES permit for the LAVWMA's intermittent wet weather discharge) at its regular monthly meeting on Wednesday, January 17, 1996. I have enclosed the adopted Order.

Should you have any questions or comments regarding this matter, please contact Mr. Vijay B. Patel of my staff at (510) 286-4223.

Sincerely,

A handwritten signature in cursive script, reading "Loretta K. Barsamian" with a small "for" written below the signature.

LORETTA K. BARSAMIAN
Executive Officer

Enclosure
cc: Mailing List